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| MAT 220: Math 4 Today 10 week: Occupational Math |
| Learning Target | Unit Name | Instructional Resources | Vocabulary |
|  | Unit 1: Whole Numbers |  |  |
| I can... -determine and explain the place value of a number. -add, subtract, multiply and divide whole numbers. | Place value in NumbersAdding Whole NumbersSubtracting Whole NumbersMultiplying Whole NumbersDividing Whole Numbers | Basic Occupational MathPages 1 - 27\*See teaching suggestions 1, 3, 4 \*See teaching suggestions 3, 4\*See teaching suggestions 2  | Place values,Decimal, Sum, Minuend, subtrahend, difference, product, quotient, dividend, divisor |
|  | Unit 2: Fractions |  |  |
| I can...-add, subtract, multiply and divide fractions.-explain the difference between proper/improper fractions and their relation to 1.-explain the size of fractions in relation to whole numbers.-measure to the nearest 1/16 of an inch.-create a scaled drawing.  | Fraction TerminologyAdding FractionsSubtracting FractionsMultiplying FractionsDividing Fractions | Basic Occupational MathPages 29 – 46\*See teaching suggestion 2\*See teaching suggestion 2\*See teaching suggestions 2, 3, 4 | Fraction, terms, numerator, denominator, proper fraction, improper fraction, mixed number, equivalent fractions, lowest terms, reducing, LCD,  |
|  | Unit 3: Decimals and Percents |  |  |
| I can...-add, subtract, multiply and divide decimals. -explain the meaning of percent.-find the percent of a number.-convert between fractions, decimals and percent.-measure to the nearest tenth, hundredth, etc.-use decimals and precents in real life scenario  | IntroductionAdding DecimalsSubtracting DecimalsMultiplying DecimalsDividing DecimalsOperations with Fractions and Decimals,Precents | Basic Occupational MathPages 47 – 75\*See teaching suggestions 1, 3\*See teaching suggestion 2\*See teaching suggestions 1, 2\*See teaching suggestion 2\*See teaching suggestion 2\*See teaching suggestion 1\*See teaching suggestion 1[End of Unit Mini Project](https://nfschools-my.sharepoint.com/%3Aw%3A/g/personal/cdubois_nfschools_net/ES2hHy3v2Q9CtAMsSx7CgcABVngMZjv3A_Tzm-VdBo827g?e=UHiQOA) | Place values for decimals, percent, rounding,  |
|  | Unit 4: Powers, Roots, and Geometric Figures |  |  |
| I can... -correctly calculate powers and roots.-identify geometric figures and distinguish the difference between 2D and 3D.-find the perimeter and area of regular and irregular figures. -find the area of shaded regions.-apply perimeter, area and volume to real life scenarios.   | Roots and PowersGeometric FiguresLinear, Angular, and Circular MeasurementAreaVolume | Basic Occupational MathPages 77 – 95\*See teaching suggestion 1\*See teaching suggestions 1, 2, 4 | Power, base, exponent, squared, cubed, square root, cube root, 2D, 3D, geometric figures, perimeter, circumference, diameter, pi, radius, formula, altitude, volume. |
|  | Unit 5: Measuring Systems and Devices |  |  |
| I can...-reason quantitatively and use units to solve problems-use customary and metric measurement.-determine which measuring device to use given a real-life situation. -convert measurements within a given system. | IntroductionMeasuring SystemsThe Metric SystemMeasuring Devices | Basic Occupational MathPages 97 – 119\*See teaching suggestions 2-8\*See teaching suggestion 3 | Tolerance, range of tolerance, meniscus,Customary system, metric system, decimal system (kilo-, deci-, centi-, milli-) cubic centimeter, divider, caliper, vernier caliper, gage blocks, protractor,  |
|  | Unit 6: Mathematical Formulas; Ratios and Proportions |  |  |
| I can... -use area, volume and other mathematical formulas to solve real life problems.-apply ratios and proportions to real life scenarios. -rearrange a given formula. | Mathematical FormulasRatios and Proportions | Basic Occupational MathPages 121 – 134\*See teaching suggestions 2, 3\*See teaching suggestions 1-3 | Equation, “same number”, “both sides”, ratio, proportion, extremes, means,  |
|  | Unit 7: Graphing (optional, time permitting) |  |  |
| I can...-determine the most appropriate graph to display given data.-read a given graph.-create a line graph.-create a bar graph.-create a circle graph. | Learning the ConceptCircle GraphsBar GraphsLine Graphs | Basic Occupational MathPages 135 – 165\*See teaching suggestions 1, 2, 3, 6, 7, 8, 9 | Graph, bar graph, discrete (discontinuous), continuous, axes (axis), continuous data, stretch modulus, independent variable, dependent variable, plotting points, best-fitting line, extrapolation, central angle,  |
|  | Final Project |  |  |
| I can demonstrate my knowledge of occupational math through a real world research project.  | Students will use technology to research mathematics in careers. | [Final Project](https://nfschools-my.sharepoint.com/%3Aw%3A/g/personal/cdubois_nfschools_net/ERSIvp1DFTVPmTJuekCJtVIBFvQx6qq2ffJxdBJaofgJrw?e=bmPIIa) | All vocabulary from above |